Program

Third Cloud Parameter Retrieval Workshop

Courtesy Daniel Hartung

15 - 18 November 2011 Madison, Wisconsin, USA
hosted by the University of Wisconsin

Organizing Committee

Bryan Baum, Ralf Bennartz, Ulrich Hamann, Andrew Heidinger, Rob Roebeling, Andi Walther, and Anke Thoss

Co-sponsored by: EUMETSAT

Tuesday 15 November 2011

07:30 Registration & Continental breakfast

08:30 Welcome
Bryan Baum

INSTRUMENT CALIBRATION

Chairperson: Patrick Minnis

08:40 Keynote: Calibration and Inter-calibration of geostationary satellite data for climate monitoring
Rob Roebeling (on behalf of Jörg Schultz and Tim Hewison)

09:10 MODIS Radiometric Calibration and Uncertainty Assessment
Xiaoxiong (Jack) Xiong

09:30 Using MSG-SEVIRI for the inter-calibration of visible and near-infrared reflectance from polar imagers
Jan Fokke Meirink

09:50 The calibration of geostationary visible sensors using MODIS as a reference
Dave Doelling

10:10 COFFEE BREAK

CLOUDS REFERENCE OBSERVATIONS

Chairperson: Andreas Macke

10:30 Keynote: Cloud Measurements, Retrievals, and Products from CALIPSO
Dave Winker

11:00 Use of A-Train observations to assess cloud phase retrievals from SEVIRI/MSG
Jérôme Riédi

11:20 An Overview of CloudSat's Cloud Vertical Structure and Precipitation Incidence Products
Tristan L' Ecuyer

11:40 Cloud liquid water path of warm clouds from passive microwave and visible/near-infrared imagers
Ralf Bennartz

12:00 Evaluation of MISR Stereo Cloud-Top Height Retrievals
Ákos Horváth

12:20 LUNCH BREAK
ask for interests in working groups

CLOUD DETECTION FROM PASSIVE SENSORS

Chairperson: Steven Dewitte

14:00 Keynote: Overview of the MODIS Cloud Detection Algorithm
Steve Ackerman

14:30 SAFNWC / MSG cloud products
M. Derrien

14:50 Multi-layer cloud detection within the SCE/CLA algorithm
Hans Lutz

15:10 Improvements in Night-time Low Cloud Detection and MODIS-Style Cloud Optical Properties from MSG SEVIRI
Galina Wind

15:30 Accuracy Assessment of SEVIRI Cloud Detection and Cloud Top Height Retrievals Using Active Remote Sensing Data from CLOUDSAT and CALIPSO
Maarit Lockhoff

Chairperson: Steve Ackerman

15:50 POSTER PRESENTATIONS (1 slides, appr. 1 min per poster)

16:30 POSTER SESSION & ICE BREAKER

Wednesday 16 November 2011

07:30 BREAKFAST

CLOUD PROPERTIES FROM PASSIVE SENSORS

Chairperson: Michael King

09:00 Keynote: Overview of the MODIS Collection 6 Optical Property Algorithm
Steve Platnick

09:30 Updated NASA Langley Cloud Property Retrievals
Patrick Minnis

09:50 New AIRS Version 6 cloud retrievals: cloud thermodynamic phase, cirrus cloud optical thickness and effective diameter
Shaima Nasiri, Brian Kahn

10:10 Synergetic cloud top height retrieval for a passive and an active sensor
Anja Hünerbein

10:30 COFFEE BREAK

11:00 Progress on optimal estimation cloud property retrieval from SEVIRI observations
Phill Watts

11:20 Cloud analyses with passive satellite imagery viewed from the radiative perspective
Hartwig Deneke

11:40 State of the NOAA AWG Cloud Algorithms and their application in the Great Lakes Region
Andrew Heidinger

12:00 LUNCH

CREW-3 INTERCOMPARISON AND VALIDATION

Chairperson: Rene Preusker

13:30 Overview
Rob Roebeling

13:50 Retrieval of cloud properties using synthetic datasets
Alexander Kokhanovsky

14:10 Realistic Simulations of MSG/SEVIRI Scenes for Cloud Algorithm Validation
Luca Bugliaro

14:30 Using CALIPSO/CloudSat Data to Evaluate the Multilayer Cloud Properties Retrieved from MODIS and SEVIRI Data
Fu-Lung Chang

14:50 COFFEE BREAK

15:20 MODIS Collection 6 Cloud Top Height and IR Thermodynamic Phase
Bryan A. Baum, W. Paul Menzel, Richard Frey, Robert Holz, and Andrew K. Heidinger

15:40 The intercomparison of retrieved cloud properties within the ESA Cloud CCI project
Martin Stengel

16:00 Results of the CREW-3 intercomparison
Ulrich Hamann

16:30 Plenary discussion: Re-calibration and validation

17:00 DINNER AND SOCIAL EVENT

Thursday 17 November 2011

07:30 BREAKFAST

WORKING GROUPS

Chairperson: Rob Roebeling, Anke Thoss

08:30 Working group formation

08:45 WG sessions

10:00 COFFEE BREAK

10:30 WG sessions

12:00 LUNCH

GENERATION OF CLIMATE DATASETS

Chairperson: Steve Platnick

13:30 Keynote: GEWEX Cloud Assessment: a review
Stefan Kinne

14:00 Small decisions with big impacts: MODIS, ISCCP, and the evaluation of clouds in climate models
Robert Pincus

14:20 Adding uncertainty information to cloud mask products – impact on Level 2 and Level 3 products
K.-G. Karlsson

14:40 Evaluation of the global cloud cover distribution obtained from multi-geostationary data in the frame of the MEGHA-TROPIQUES mission with CALIPSO lidar observations.
Geneviève Sèze

15:00 Cloud variability and climate signatures in MODIS Level-3 data
Brent Maddux

15:20 COFFEE BREAK

15:40 Keynote: Recalibrating and reprocessing the HIRS data to infer global cloud properties and trends
Paul Menzel

16:10 Evaluation of a 30-year NOAA-AVHRR cloud physical property climate data record
Erwin Wolters

16:30 Plenary discussion: Preparing climate datasets

17:00 DINNER ON OWN

Friday 18 November 2011

07:30 BREAKFAST

GENERATION OF CLIMATE DATASETS

Chairperson: Ulrich Hamann

09:00 Presentations of WG *Cloud vertical placement*

09:30 Presentations of WG *Cloud microphysical properties*

10:00 Presentations of WG *Generation of climate datasets*

10:30 COFFEE BREAK

Chairpersons: Rob Roebeling, Anke Thoss

11: 00 Final Plenary Discussion

11:50 Where to go from here

12:00 DEPARTURE AND BOX LUNCH

Posters

Sources of error in satellite derived products
Andi Walther

New Generation of Ice Cloud Bulk Scattering Models for Satellite Sensors
Bryan A. Baum, Ping Yang, and Andrew J. Heymsfield

Synergistic MERIS-AATSR cloud properties retrievals using optimal estimation technique
Cintia Carbajal Henken, Andi Walther, Rasmus Lindstrot, Rene Preusker, Jürgen Fischer

Improved Methods for and Validation of Nighttime Cloud Property Retrievals from SEVIRI, GOES and MODIS
Patrick Heck, Patrick Minnis, Rabindra Palikonda, Sarah Bedka, Christopher Yost, Yuhong Yi and J. Kirk Ayers

A MSG/SEVIRI simulator for the validation of climate models
B. Jonkheid, R. Roebeling and E. van Meijgaard

Optical Property Cloud Phase Retrievals for MODIS Collection 6: assessment from CALIOP/CALIPSO
Benjamin Marchant, Steven Platnick, G. Thomas Arnold, Bryan Baum

An Enhanced cloud classification scheme based on radiative transfer simulations and aggregated ratings.
Jan Musial, Stefan Wunderle

LaRC real-time satellite derived products – Overview: Applications and Limitations
Rabindra Palikonda, Patrick Minnis, W.L. Smith, Jr., Douglas A. Spangenberg, B. Shan, Thad Chee, J. Kirk Ayers, Mandana, M. Khaiyer, Michele L. Nordeen, Louis Nguyen, C. Fleeger, Qing Z. Trepte, Fu-Lung Chang, Patrick W. Heck

Cloud Phase Determination Using Infrared Absorption Optical Depth Ratios
Michael J. Pavolonis

A novel technique for validating liquid water cloud properties
S. Placidi, D. Donovan and R. Roebeling

MODIS Optical Property Pixel-Level Uncertainty Estimates in Collection 6
Steven Platnick, Gala Wind

A new Spectrally Consistent Adiabatic Method to derive cloud properties from MODIS measurement
Vincent Puygrenier

Estimation of cloud properties though a spectrally consistent adiabatic model
John Rausch

An Equal-Angle Space-Time Gridding Tool for NPP Cloud Products
Nadia Smith, W. Paul Menzel, Elisabeth Weisz, and Bryan A. Baum

Improved Methods to Resolve The Vertical Distribution Of Cloud Water From Passive Satellite Data
William L. Smith Jr., Patrick Minnis, Douglas Spangenberg, Rabindra Palikonda, and Yuhong Yi.

Application and evaluation of the Oxford-RAL Retrieval of Aerosol and Cloud algorithm to MODIS data
Gareth Thomas, Caroline Poulsen, Richard Siddans and Don Grainger

A Comparison of Cloud Detection between CERES Ed4 Cloud Mask and CALIPSO Version 3 Vertical Feature Mask
Qing Trepte, Patrick Minnis, Sunny Sun-Mack, Ricky Brown, Charles Trepte

An assessment of differences between cloud effective particle radius retrievals for marine water clouds from three MODIS spectral bands: observational and modeling studies
Zhibo Zhang, Steven Platnick, Graham Feingold, Andrew Ackerman, and Robert Pincus